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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,319

09/27/2004

Martin Roth

75248-034

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21890

7590

04/29/2009

PROSKAUER ROSE LLP  
PATENT DEPARTMENT  
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EXAMINER

KRUER, KEVIN R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/29/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/509,319	<b>Applicant(s)</b> ROTH ET AL.	
	<b>Examiner</b> KEVIN R. KRUER	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/16/09</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Election/Restrictions**

1. Claims 9-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 26, 2006.
2. Applicant's election with traverse of group I in the reply filed on May 26, 2006 is acknowledged. The traversal is on the ground(s) that the search would not be an undue burden. This is not found persuasive because the inventions are classified in different classes and each invention requires a distinct set of classes/subclasses to be searched.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmann et al (US 4,806,450) in view of Kawase et al (US 5,753,362).

Hoffmann teaches a coating composition comprising a (meth)acrylic copolymer having a molecular weight of 15,000-500,000 (col 3, lines 37+) and an OH value of 20-100mg KOH/g (col 3, line 10). The copolymer comprises (meth)acrylic acid, (meth)acrylate, and hydroxylalkyl (meth)acrylate, wherein some of the carboxyl groups

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of the copolymer are esterified by reaction with glycidyl (meth)acrylate (abstract), preferably 10-60% (col 3, line 6). The copolymer comprises 8-30wt% acrylic acid (abstract).

Hoffmann does not teach that the reaction product should further comprise an unsubstituted phenol such that the phenol to (meth)acrylic ester ratio is within the claimed range. However, Kawase teaches a methacrylic acid copolymer may have its glass transition temperature optimized by utilizing a phenol methacrylate such as benzyl methacrylate (col 13, lines 18+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to polymerize benzyl methacrylate into the polymer taught in Hoffman in the claimed relative amounts in order to optimize the glass transition temperature of the coating.

With regards to claim 8, it is known that the molecular weight of a polymer affects its processability. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the molecular weight of the polymer taught in Awokola in order to optimize the processability of the composition.

### ***Response to Arguments***

Applicant's arguments filed January 16, 2009 have been fully considered but are not persuasive.

Applicant argues Hoffman does not suggest or reach a copolymer having a ratio of component a) to component b) of 80:20 to 20:80. The examiner agrees and relies upon Kawase for a suggestion of adding phenol (meth)acrylate copolymers to the polymer taught in Hoffman based upon optimization of the copolymer's glass transition

temperature. Applicant argues there is no teaching or suggestion to make the proposed combination because phenol (meth)acrylate is taught to raise the glass transition temperature of the resulting polymer. The examiner is not persuaded by the argument because Hoffman teaches the polymer is preferably solid at room temperature. Applicant argues the raising the glass transition temperature would decrease the processability of the copolymer. The examiner respectfully disagrees. Raising the glass transition temperature would raise the temperature at which the polymer solidified; this could result in decreased processing times.

Applicant further argues that Hoffman requires the film to exhibit improve solubility in an alkaline solution and that the skilled artisan would expect alkaline solubility to decrease since the relative amount of groups which could be deprotonated in the resulting copolymer would be less. The examiner respectfully disagrees. Since the benzyl (meth)acrylate is being substituted for alkyl (meth)acrylates no substantial change in alkaline solubility is expected.

Applicant further argues unexpected results. Specifically, applicant argues that the claimed polymer exhibits excellent hardness after drying in combination with high photosensitivity. In support of said position, applicant points to table 8 in the specification. Said data has been fully considered but is not persuasive because it fails to compare the claimed invention to the closest prior art; Formulation B does not represent the composition of Hoffman. Furthermore, said showing fails to demonstrate unexpected results; the hardness of formulations B and C are extremely similar. The showing also does not agree in scope with the claimed invention.

For the reasons noted above, the rejections are maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUEER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kevin R Kruer/  
Primary Examiner, Art Unit 1794